Developing State Monitoring Strategies to Balance Multiple Monitoring Needs including 305b & 303d & TMDLs

Approach, Experiences and Reality in EPA Region 7

Program Integration vs Balance

The monitoring designs needed for 305b and 303d have been shown to be complimentary. Probability-based 305b data can be used to validate the size of the state's 303d list.

With 305/303 report integration (CALM) guidance forth-coming, the challenge is less about integrating reports than how to fund, operate and sustain multiple sampling networks to meet multiple monitoring needs.

Demands on State Monitoring

- Status of all waters = 305(b) report
- Identify all impaired waters = 303(d) list
- Data to develop and verify TMDLs
- Point sources NPDES and NPDES Pretreatment
- Non-point sources (319 program)
- Biological & water quality standards development
- Characterize Reference conditions (biol. & chem.)
- Toxic compounds in water, sediment & fish tissue
- Special Investigations (UAAs, fish kills, etc.)
- Radar Screen (identify new & future threats)
- Multiple spatial scales (statewide, watershed, local)

Resources Needed for a Good, Balanced State Monitoring Program

- Iowa and Nebraska independently estimated it would cost 5 to 7 million per year.

- Add 1-2 million per year for TMDLs
- Total = 6 to 9 million dollars per year

- This does not include “radar screen” components such as air deposition monitoring.

Clean Water Act Issues

- CWA does not specify how states are to monitor their waters (unlike Clean Air Act).
- There are currently no set criteria or guidance to evaluate the adequacy of a state monitoring program.
- CWA does not provide dedicated funding for monitoring (unlike Clean Air Act).

State Monitoring Strategy Development

Process Steps Used in Region 7

1) Organized internally:

A) Provide regular monthly dialogue for all programs with monitoring needs (Regional monitoring team).

B) Construct a vision of what monitoring should be in 5 to 10 years and stayed focused on that vision (SRAF)

C) Inventory and prioritize program needs: statute vs policy

D) Developed our bottom-line: comprehensive coverage, good science and balanced monitoring program

State Monitoring Strategy Development

2) Conduct monitoring planning meetings with states. Focus on 3 key aspects to meetings

A) Approach: Emphasized building partnerships

B) Agenda: Constructed to explore both basic "bottom-line" expectations for monitoring and check specific program elements.

C) Products:

current monitoring program summary,
identification and prioritization of gaps in program (strategy)
management briefing on findings
identify time frame to repeat process

Successes

- Identified and prioritized monitoring improvements in Nebraska with commitments to spend supplemental106 funds on the improvements
- Coordinated and created monitoring dialogue between programs and managers and staff
- Implemented R-EMAP in wadeable streams all 4 Region states to improve comprehensive coverage and good science
- Identified gap for state wetlands monitoring and are developing wetland monitoring strategies such as, Iowa Wetlands characterization through R-EMAP in 2003.

Lessons Learned

- Coordination and communication are hard work.
- People have to be willing to think outside their program boxes and sacrifice short term single program needs for long-term big picture benefits.
- Agreement on fundamental bottom-line concepts in not a given.
- Establishing True Partnerships is easy to say and hard to do. It requires honesty, a willingness to listen to your partners priorities and, a willingness to look for what you can bring to the table to solve problems.
- Partnership and coordination are essential keys to long term resolution of monitoring problems.